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Original Communications.

ALCOHOL AS A NUTRITIVE AGENT.

By H. P. BOWDITCH, M.D., Boston. Read before the Boston Society of Medical Sciences.

THE experiments of Dr. Subbotin* were performed on rabbits enclosed in an apparatus by means of which the exhalations of the skin and lungs could be examined for alcohol. The urine was also collected and examined for the same substance.

The experiments showed that in the first five hours after the introduction of 3.45 grammes of alcohol into the stomach of a rabbit about 2 per cent. was eliminated by the kidneys, and 5 per cent. by the lungs and skin.

Experiments extending over a greater length of time led to the conclusion that, usually, during twenty-four hours at least 16 per cent. of the injected alcohol leaves the body in an unchanged condition (or perhaps as aldehyde), and that besides this elimination by lungs, skin and kidney, a portion of the alcohol is oxidized in the organism. Although by this oxidation force must be set free in the organism, the author does not consider that alcohol is on that account to be regarded as a nutriment, for the functions of the animal body depend for their performance, according to Dr. S., upon the transformation of living material, *i. e.*, of the constituent parts of the body, and not upon the decomposition of matter foreign to the body.

In a note appended to Dr. Subbotin's essay, Prof. Voit expresses himself as follows: "I do not agree entirely with Dr. Subbotin in his views on the importance of alcohol as a nutriment. I define a nutriment as a substance which is capable of furnishing to the body any of its necessary constituents or of preventing the removal of such constituents from the body. To the first class belong such substances as albumen (since it can be deposited as such in the body), or fat or water or the mineral constituents of the body; to the second class belong such substances as starch, which hinders the loss of fat from the body. If a nutriment is defined as a substance which by decomposition furnishes living force to the body, the definition would not be exhaustive, for it would exclude water and the mineral constituents of the body. Alcohol must, therefore, to a certain extent, be regarded as a nutriment, since, under its influence, fewer substances are decomposed in the body. It plays in this respect a similar (though quantitatively very different) part to that of starch, which also protects fat from decomposition and, when taken in excess, causes deposition of fat in the organs or fatty degeneration. If a part of the alcohol is decomposed in the body into lower forms of chemical combination it *must* give rise to living force, which either benefits the body in the form of heat or may perhaps be used for the performance of mechanical work; the same is true of acetic acid, which is also not to be considered as an ultimate excretory product, and from which, therefore, in decomposition potential force passes into living force.

"It is another question, however, when we ask what importance alcohol has for us as a nutriment and whether we take it in order to save fat from decomposition and furnish us with living force, in other words, to introduce a nutriment into the body. Since alcohol, when taken in considerable amount, causes disturbances in the processes of the animal economy, we cannot introduce it in quantities sufficient for nourishment as we do other nutriments, and in the amount which we can take without injury its importance as a nutriment is too small to be considered. In this point, then, I agree entirely with Dr. Subbotin; we use alcohol not on account of its importance as a nutriment, but on account of its effects as a stimulant or relish."

Prof. Voit's definition of a nutriment is rather more comprehensive than those usually given, but it has the merit of great exactness, and of leaving no doubt as to its applicability to any given substance. Whether this definition or any other be adopted, it is, of course, essential, as a preliminary to the discussion of the nutritive value of alcohol or any other substance, that we should define as exactly as possible what we understand by the terms "nutriment" and "nutrition."

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* On the physiological importance of alcohol for the animal organism. Leibschrift für Biologie. vii., 361.

Although, as Prof. Voit says, alcohol cannot, under normal circumstances, be introduced into the body in sufficient amount to be of any importance as a nutriment without producing toxic effects, may it not be that in those morbid conditions of the system where large amounts of alcohol are borne without causing narcotism, the nutritive properties of the substance really become important, and that patients who are supported by alcohol through periods of great weakness or exhaustion are really nourished and not simply stimulated by it?

A CASE OF RAMOLLISSEMENT ROUGE.

By E. P. Hurd, M.D., Newburyport, Mass.

This disease goes by the name of local cerebritis and acute softening of the brain. The following case is a typical one, as judged by the symptoms during life, although no opportunity was afforded of verifying the diagnosis by an autopsy.

I was summoned, Feb. 24th of the present year, to attend Mrs. D., 64 years of age. Is of a healthy family, and had always enjoyed excellent health previously. She had been for some time suffering from debility. I found her pale, weak, with poor appetite, torpid bowels, and "very nervous." Tongue clean, pulse regular. There was an anxiety and restlessness depicted in her countenance which were well marked. She told me that she had strange sensations. There was occasional numbness in her extremities, which only partially yielded to rubbing; she thought it must be due to stagnation of the blood, but the parts were always warm. There was often pain in the top of the head, and momentary dizziness. She felt as though she were going to be crazy. Some nights she slept pretty well, and other nights she did not sleep at all. But the most marked feature, to her, of her complaint was her utter powerlessness; it seemed as though she had not strength to move. From being a person of active habits, she had been compelled to give up all housework.

I diagnosticated the case to be one of general nervous and muscular debility, and prescribed tonics—as quinine, ale, strychnia, exercise by riding in the open air, and short walks, daily frictions of the entire body, a diet principally of oatmeal and Graham bread, with fruits, vegetables and a little beef; and five grains of chloral at bedtime to procure sleep.

The three or four following weeks I saw my patient frequently. There was no amelioration of the symptoms, as above described. The numbness was very troublesome. There was often a wild, strange feeling about the head, confusion of thought, and forgetfulness. The latter symptom was so marked that it excited wonder in her family. She was so easily excited that if visitors called to see her in the evening she failed to sleep afterwards, and she found it necessary to interdict company the latter part of the day; yet her sleep was often very heavy. She has frequently been known to sleep soundly from 8, P.M., till 7 o'clock the next morning. At other times she would wake up during the night with frightful dreams, and could get no more sleep till the next night. There was still a foreboding of something dreadful about to happen to her. Motor disturbances were noticeable. At times she staggered and fell, on attempting to walk. She was much troubled on account of involuntary twitchings of the muscles. The countenance was assuming more and more a sallow look and haggard expression. There was a decidedly febrile condition at times, with accelerated pulse, which was tense and hard; at other times the pulse was slower than usual, and the surface cold.

I thought it necessary to discontinue the quinine and nux vomica, and allow nothing but a little whiskey at such times as there was coldness and faintness; nor did it seem expedient to continue the chloral. The sleep after taking chloral was too heavy and prolonged. A few grains of powdered lupulin seemed to quiet restlessness quite as effectually as anything. The restlessness became more and more marked. Sometimes she would send for me in extreme terror, and I would be obliged to exert myself to the utmost to arouse her out of what seemed to me to be incipient madness.

There was at no time constipation or vomiting. Ten drops of fluid extract of leptandrin, with a teaspoonful of syrup of rhubarb, taken occasionally at bedtime, was all that was required to keep the bowels in good condition.

March 21st.—There is so much heat and pain of the head to-day, with general febrile symptoms, that I have found it necessary to put her on gruel diet, prescribe the continuous application of cold to the head, a blister to the nucha, and, internally, three drops every two hours of tincture of gelseminum (Wilson's tincture). Half-drachm doses of elixir of valerianate of ammonia have had a good effect.

March 25th.—Patient had a comfortable forenoon. Rode out a short distance in a coach. There was less than the usual numbness, restlessness and spasm. Appetite improved. Afternoon.—Sent for me, as she was not so well. Found her feverish and gloomy. Head hot, pupils of eyes contracted. A strange, wild, dizzy feeling. Prescribed rest in bed and a saline purge. As her medicine was out, I left a mixture containing five drops of Thayer's fluid extract of gelseminum to the teaspoonful; dose, a teaspoonful every two hours. Ice to the head. Midnight.—Was summoned in haste to her bedside. Mrs. D. was a raving maniac. It was with difficulty that her husband, a strong man, could keep her in bed, and her family were in the utmost affliction. I prepared a solution of bromid. potass. ℈ij., with chloral ℈i., to be given at once. This, with considerable difficulty, was administered. I waited an hour, when, as there was no abatement of violence and delirium, I injected, hypodermically, one-fiftieth of a grain of atropia. This calmed her, and in one hour she was in a sound sleep.

March 26th.—Patient was still sleeping at 8 o'clock this morning. A high febrile condition. Skin very hot and dry. Pulse bounding, tense. On taking the hand, I found it fixedly bent on the wrist. The lower extremity of the same side (the right) was flexed and similarly rigid. Attempts to overcome this rigidity were persistently resisted. The spasms were not altogether tonic, for there were occasionally violent jerkings of the extremities of both sides and transient convulsive writhings of the whole body. I ordered six leeches to be applied to the temples, bleeding to be encouraged by fomentations with warm water. The gelseminum mixture to be given every hour. By hypodermic injection, one fiftieth of a grain of atropia was exhibited. As there had been no action of the bowels, a purgative of podophyllin and castor oil was administered. At noon Mrs. D. was wide awake, and partially conscious. She answers questions readily, and knows her physician and acquaintances who call. Has taken a little nourishment. The rigidity still remains, but is confined to the right forearm, which is still bent on the wrist, but can now be easily straightened. The atropia injection was repeated. The oozing from the leech bites is profuse.

There was progressive and rapid decline after this date. The purging failed to give more than temporary relief. Vomiting set in the next day, and continued for the next twenty-four hours. Nothing could be retained but small pieces of ice. The muscles of deglutition became next involved in the spasmodic rigidity; a state of tetanus supervening, which rendered it impossible to administer nourishment by mouth. Then pus began to be discharged in great quantities by the mouth; where it came from I was unable to ascertain. The whole body was now bent to the left side; her position in bed was like that of a bow. There was continually an imperfect coma, from which she could easily be roused. Pupils insensible to light and somewhat dilated. When she has spoken, her language has been incoherent and delirious.

On Sunday, she persisted in getting out of bed and standing up. She would pick at the window curtain twenty minutes at a time. When in bed, would pick at the bedclothes or the dresses of her attendants. There was still a tetanoid condition of the flexors of the right side, though this was, I fancied, partly overcome by the atropia. On Monday, with rigidity of the muscles of the right side, there was paralysis. She lay in bed, in the arched condition before described, unable, apparently, to move that side of the body. She complained of pain when I inserted the hypodermic needle, but was unable to draw away the affected arm. All day she lay in an imperfect coma. Pulse was gradually growing more and more feeble. Cold, clammy sweats set in. At 8, P.M., Tuesday, she sank quietly and died.

These are the characteristic symptoms of softening of the brain. It is seldom that the physicians finds, in practice, a case which in its clinical history so nearly corresponds to the description given in the text books.

There could be no danger of confounding the group of symptoms here detailed with meningitis or non-inflammatory (white) softening. The progress of the case showed that the medullary portion of the brain was principally affected. The early prostration was evidence of inflammation in the cerebral mass, and a consequent loss of nerve power, such as is requisite to sustain the functions of the whole system. The resulting abnormal sensations and motor disturbances point rather to irregularities in the sensory and motor centres than to meningeal or surface irritation. There was not that severe, persistent pain in the head, the early vomiting and constipation which characterize meningitis. That, however, the meninges and supreme centres became eventually involved by the extension of the inflammation is highly probable. I think that the invasion of delirium marked that period.

That there was *inflammatory*, not *white* softening, is, I think, sufficiently obvious from the symptoms, so characteristic of the former:—imperfect coma, with rigidity; tonic spasms, confined more especially to the flexors, with frequent spasms of a clonic nature; and, finally, paralysis without total loss of consciousness. The disease, moreover, as judged by the symptoms, was essentially inflammatory from the first.

In *white* softening, paralysis is one of the earlier symptoms, and the paralyzed members present no early rigidity or contraction, they are flaccid. Neither tonic nor clonic spasms are common to non-inflammatory softening. The symptoms are those of diminished excitement of the brain. Yet non-inflammatory softening may, in its later stages be accompanied by many of the characteristic symptoms of local cerebritis, as when active inflammation is set up around the white softened spot. Such a complication would make the diagnosis more difficult.

In the case reported, the steady ingravescence of the disease is well marked. The congestive stage is denoted by the group of premonitory symptoms indicating general loss of power and impairment of function. Here was evidently some powerful disturbing cause affecting the white substance of one-half of the cerebrum, and, by proximity, influencing the nutrition, and so, in a measure, inhibiting the intellectual centres. An excess of blood there would rob the supreme mental centres of that full nutritive supply in which the condition of wakeful activity depends, and so hebetude, drowsiness and prolonged heavy sleep, would result, only interrupted by such periods of excitement and restless wakefulness as indicated an extension of the hyperæmia to the surface ganglia themselves. Such a condition would naturally result from any cause favoring general cerebral plethora (such as the ingestion of stimulating food or drinks, the air of an overheated room, &c.), and so periods of drowsiness would alternate with periods of excitement, which was actually the case.

The occurrence of mania, rigidity and convulsions marked the stage of active inflammation; the supervention of paralysis, the period of softening suppuration and complete disintegration of the cerebral substance.

As to the causes of this dire disease, they are those of cerebral inflammation in general, and need not be enumerated here. In the case of Mrs. D., the period of life had, probably, much to do with the inception and development of the disease; degeneration of bloodvessels, possibly, favoring the escape of abnormal nutritive plasm, which became an irritant foreign body; or resulting in atrophy of some ill nourished portion which eventually, by softening, became the nodus of active inflammation. It is to be regretted that it is not always in the power of the physician to clear up the difficulties which beset him in striving to account for the causes of a disease by a *post-mortem* examination. I regret that in the case of Mrs. D. I have nothing better than conjecture to offer as to proximate causes.

As to treatment, I think that an early correct diagnosis may save much suffering and prolong life. The error with the case referred to, if error there were, consisted in too long treating the case as if it were one simply of debility. All such premonitory symptoms as have been described should be looked on with suspicion, and care should be taken not, by too stimulating a treatment, to fan the flame of a latent inflammation. A cool, unstimulating diet should be enjoined. Cold to the head and *sedatives*—not narcotics—aconite, gelseminum, veratrum viride, cyanide of potassium, and belladonna would all be indicated. The early application of cups and leeches would be desirable.

When the symptoms of active inflammation set in, there is little that can be done. It is of no use to give calomel or antimony. Bleeding can do no good; large doses of aconite or gelseminum can accomplish nothing; opium, to quiet cerebral excitement, is worse than useless. Chloral may be safe, but the preferable anodyne, relaxant and antispasmodic, in cerebral plethora, is undoubtedly belladonna. The frequent exhibition of atropia, subcutaneously, is the best thing that can be done, and this only makes the patient more comfortable; it does nothing towards averting an issue which was probably inevitable from the very first.

THE first number of a *Medical Gazette* in Turkish has made its appearance. It is printed at the Haidar-Pasha Hospital.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

April 30th, 1872.—The Society met at the house of Dr. White. Dr. Jeffries in the chair.

Paralysis due to Lesion of Cord with Secondary Degeneration and Exudation around the Bloodvessels.—Dr. Webber described a case of paralysis with extensive changes in the spinal cord, corresponding in its nature with the paralysis ascendens acuta spoken of by Eulenberg, who, in his work on Functional Diseases of the Nervous System, refers to its pathological anatomy as though it were probable there was some organic lesion; but what this lesion is has not yet been decided.

Michael M. W. entered the City Hospital in Dec., 1869. Had had blennorhœa, but denied syphilis. Pains in forehead. Vertigo. Ankles swollen and painful. Under iodide of potassium and iron he was relieved and left Feb. 7th, 1870. Reëntered July 1st, 1870. Between these two dates had had attacks of vomiting and weakness in his legs; he could move his lower extremities in bed, though he was unable to walk. The paralysis extended, accompanied by incontinence of urine and fæces. Died Aug. 12th.

At the autopsy, all the organs seemed healthy, and there was only congestion of the dorsal spinal dura mater and of the grey substance of the lower part of the cord. The microscope showed some degeneration of the nerve fibres of the lumbar and sacral plexus. The cord was softened in the dorsal region, or changed so that it did not harden well. Amyloid corpuscles were found on the circumference, and at the posterior part penetrated deeper toward the centre throughout the length of the cord. At about the middle of the cervical enlargement and in the lumbar region were many exudations around the bloodvessels in the posterior roots, central commissures, and at the base of the anterior roots. A similar exudation was seen in the medulla near the auditory nuclei. This exudation took carmine well, was laminated concentrically, slightly fatty in centre where large masses were found, was not acted on by acids, alkalies or iodine, and did not resemble anything before seen or seen described. The pia mater was thickened with multiplication of nuclei. The cord next the pia mater was extensively disorganized, and generally the nerve fibres did not show well. The vessels showed an increase of nuclei. The cord had undergone the secondary degeneration described first by Türck. Above the softening, the posterior columns were affected; below the softening, the anterior and lateral, and lower still the lateral only. The posterior roots were more degenerated than the anterior in the lumbar region.

The changes were thought to be due, probably, to syphilitic taint, though the changes in the cord caused by syphilis have not as yet been very thoroughly studied. The symptoms were all satisfactorily explained by the results of the microscopic examination, though the gross appearances showed no changes or only very slight ones.

Dr. Webber then placed some sections of the cord under the microscope.

Dr. Ellis suggested the resemblance of the nodules in this case to gummata, the collection of nodules in tubercular disease not being rounded, but occurring as sheets.

Dr. Webber called attention to the fact of the multiplication of nuclei being *in* the perivascular sheath.

Dr. Fitz asked if evidence of syphilis were present elsewhere.

Dr. Webber said not to the naked eye.

Dr. Ellis spoke of the degenerative changes in the spinal cord, common after lingering diseases where there is irregular distribution of paralysis and perversion of sensation. This degeneration is limited; the complicated cases, of difficult diagnosis, are the very ones not reported in books.

Dr. Webber added that although a diagnosis can be made where a case is seen early, and, for example, where there is hæmorrhage into the cord, yet in old cases, seen late in life, an exact diagnosis is almost impossible. Here, not only was the peripheral softening and the inflammation of the membranes and cord itself peculiar, but also the coloration given by carmine, the thin exudation through and among the tissues around the small bloodvessels taking only a faint, pinkish stain.

Dr. Ellis asked if hæmorrhage into the spinal cord is not rare.

Dr. Webber thought it was.

A Case of an Accessory Belly to the Second Interosseous Muscle of a Hand.—Dr. Dwight read a paper recording a case of muscular anomaly, probably unique. He said that the great attention lately paid to muscular anomalies has shown that their number is far greater than had been supposed. Many peculiarities which had been looked upon as very rare have been so thoroughly analyzed that now one hesitates to record them. Consequently any really new peculiarity is interesting to the anatomist, even if the muscle affected be not an important one.

The peculiarity which is the subject of the paper was observed on a subject remarkable for many anomalies. It occurred only on one side.

The accessory muscle arose from the fascia connecting the exterior tendons directly over the base of the third metacarpal. It was about a fourth of an inch in breadth, muscular from its origin and continued a well-defined belly till it reached the joint, where it was enveloped by the fibres of the normal muscle, in union with which it was inserted on the radial side of the third phalanx. Its volume was equal to about half of that of the regular muscle, and its action [as shown by pulling in the direction of its fibres] was nearly as great.

To show the rarity of this small muscle, he referred to the following works:—

Quain says that "the interosseous muscles are subject to some variation in their number and form." He also alludes to an additional palmar interosseous going to the dorsal aspect of the thumb, which is not of very uncommon occurrence.

Henle [Muskellehre] says "exceptionally one or another of the [dorsal] interosseous muscles receives an additional head from the base of the metacarpal or even from a carpal bone of the second row." This would appear to imply that it is not uncommon, but the fact that it is so appears from the elaborate tables of hundreds of carefully studied cases recorded by Mr. Woods, of London, in the Proceedings of the Royal Society, in which there is no mention of a similar appearance, except in the passages to be presently quoted. A conscientious study had not enabled Dr. Dwight to find anything in the works of other authorities bearing on the question.

The following extract is from Mr. Woods's paper in the Proceedings of the Royal Society of London for 1864:—

"*Extensor brevis minimi digiti* with double tendon, one going to the fourth finger. Associated with this are three various slips or displacements of the *dorsal interossei*, arising from the base of the metacarpal, or magnum and unciforme, and attached to the common expansion of the extensor tendons, behind the slips from the interossei. These slips are considered by the author to indicate a tendency to the formation of an *extensor brevis digitorum manus* by posterior displacement of the fibres of the dorsal interossei."

This is by no means the same as in the specimen described, for there the additional muscle is inserted in common with one of the interossei. In the publications of the same Society for the next year (1865) Mr. Woods, gives two cases of much interest. "On the back of both hands was a good specimen of the muscle just described and figured by the author in his last paper as an *extensor brevis digitorum manus*. It was arranged in three slips arising by a common aponeurosis from the magnum and unciform bones, the two outer inserted with the *dorsal interossei* muscles into the extensor aponeurosis at the base of the middle finger, and the inner at the base of the same structure at the base of the ring finger.

This muscle was also found very well marked in another muscular male arm. It will be seen that in it there is a still closer approach to the arrangement of the *extensor brevis digitorum pedis*, inasmuch as the outermost slip is not inserted with the dorsal interosseous into the middle finger, but with the first palmar interosseous into the ulnar side of the index or second digit and its extensor aponeurosis."

The specimen which is described by Dr. Dwight may be looked upon, he thought, as an example of a lesser degree of development of the last-described muscle. Its rarity may be proved by the fact that it is not referred to by any of the authorities quoted (except vaguely by Henle), who nevertheless have minutely described quite as small anomalies.

Electro-therapeutical Apparatus. — Dr. Lincoln exhibited the electro-therapeutical apparatus of Brenner, consisting of a mahogany tablet thirty inches square, upon which are arranged the following instruments:—

1. "Current-selector" or switch-board, for introducing into the circuit any number of elements, up to sixty. Brenner himself prefers the use of pegs to that of the switch, but they are more troublesome to handle.

2. "Upright tangent-galvanometer," the wire of which measures 0·008 inch in diameter and offers 82·4 B. A. of resistance.

3. "Commutator," for instantly reversing the direction of a current, whether galvanic or Faradic, without changing the position of the electrodes in reference to the body.

4. "Rheostat," forming a portion of an

accessory circuit. It contains 2100 units of resistance (Siemens, = 2002·7 B. A. units), and as these are arranged by tens, the instrument enables us to measure 210 grades in the intensity of the current, whether generated by one cell or several. Brenner attaches great importance to its use in treating the auditory nerve, as by it we are enabled to begin with a very minute fractional dose of electricity and to raise the quantity by degrees, so as to avoid the infliction of a sudden shock, which might prove a serious injury.

5. "Rheotome." This instrument acts in two ways, depending on the arrangement of certain pegs connected with it. In the first place, when a constant current is flowing, it can produce a single momentay interruption; in the second place, the current not flowing, it can produce a single momentary passage of the current; and the shock—from the interruption, or from the passage of a current, as the case may be—can be made to last a longer or shorter time by sliding a metal plate in or out. The instrument is essentially composed of a finger of brass, swinging horizontally upon a pivot, and its course impinging upon the plate of metal just mentioned—the current enters at the pivot—and is conveyed through the brass finger to the metal plate during the moment of contact.

6. "Automatic interruption of the constant current." This consists of a "Neef's hammer," similar to those attached to the electric alarm-bell. The rate of rapidity with which interruptions can be effected varies from four to ten in the second, which is sufficient for practical use. The indicator of the galvanometer, which during the passage of the uninterrupted current would mark 35°, points to the neighborhood of 15° and 20° when the current is interrupted by this apparatus; showing that a great quantity of the current still passes.

7. Du Bois-Raymond's "sledge apparatus" for generating the Faradic current. The primary coil contains about 320 turns of wire, the secondary 9970. The tetanizing effects of the current from the primary coil seems greater than that from the secondary; its *quantity* is distinctly apparent in the deflection of the galvanometer-needle to the extent of nearly one degree. The secondary coil gives a spark of a tenth of an inch only, its construction not being suited for the development of the enormous tension which some of Mr. Ritchie's coils display.

The hammer is made in two pieces, the inner of which may be drawn out like a telescope slide for the purpose of retarding the rate of vibration. By weighting it with two or three small copper coins it may be retarded still farther, giving as few as four strokes in the second; the extreme rate of rapidity being indicated by the production of the musical note *F*, proving that 168 interruptions per second are effected.

The motive power of this Faradic apparatus is furnished by two Leclanché elements; the galvanic current is obtained from sixty Daniell's cells, as modified by Siemens and Halske.

The Leclanché element consists of a cylinder of zinc immersed in a solution of sal ammoniac, and a piece of carbon packed with powdered binoxide of manganese and carbon in a porous cell. The cheapness of the exciting fluid—for only one fluid is required—is a recommendation of this form of battery; it is said also to be very constant, and it certainly makes very little trouble or dirt. It generates ammonia gas when in action, which would be an objection to the use of a large number of cells in an occupied room.

The Siemens-Halske element cannot well be described without a diagram. It is a very constant element and requires little attention. The metal and fluids are the same as in an ordinary Daniell's cell, but the diaphragm (of porous clay) is reënforced by a layer of papier-maché some inches thick, which increases the resistance very much.

The arrangement of switches in the apparatus is such that three patients can be operated upon at once, one receiving the current from the primary coil, another that from the secondary, and a third the galvanic current.

The apparatus deserves especial praise for the solidity with which all connections are made, and the accuracy with which the switches are adjusted, and the pegs fitted. The only instrument liable to be injured by careless usage is the Faradic apparatus, especially the hammer; it would not be a proper thing to entrust to the management of a nurse; but it is capable of producing a great range of effects, and its currents are very smooth and equable.

Krüger and Hirschman, of Berlin, constructed the apparatus.

In answer to a question from Dr. Bowditch, Dr. Lincoln said that the papier-maché served the purpose—First, in keeping the zinc and copper at a fixed distance from each other; and second, in offering a great *resistance*, which increases the penetrating force of the current. In passing from the zinc to the copper, the current had to traverse two inches of the densely-packed papier-maché besides the earthern diaphragm.

An Instrument for Determining the Highest Musical Note Audible to the Human Ear.—Dr. Bowditch exhibited a series of König's rods, and said that the highest audible note differs greatly in different individuals. Thus the shrill sound emitted by certain insects and the sharp cry of the bat are inaudible to certain ears, while distinctly perceived by others.

An instrument for determining the limit of hearing in this direction consists of a series of cylindrical steel rods of the same diameter and different lengths, suspended at points one quarter of their lengths from their ends, and giving, when struck, musicals notes ranging from C of the seventh to C of the tenth octave. As tested with this instrument, the ears of different individuals are found to differ by an octave in their power of distinguishing high notes, some persons being unable to hear any note higher than G of the eighth, while others can distinguish G of the ninth octave. In the majority of cases the limit of hearing seems to lie between D and E of the ninth octave, that is, at about 40,000 vibrations in a second. In general, the power of hearing high notes seems to diminish with age, but there are many exceptions to the rule.

The intensity of the note has a decided influence on its audibleness. This may be shown by comparing two rods of different diameters and lengths, both giving, when struck, the note G of the eighth octave. The larger and heavier rod, setting a larger amount of air in vibration, gives a note audible to nearly all ears, while that of the smaller rod is audible to very few.

A set of rods of this sort furnishes a very convenient means of studying the so-called "resultant tones" described by Helmholtz. If, for instance, C and E of the seventh octave are struck at the same time, a note two octaves lower than the lowest of these, namely, C of the fifth octave, is distinctly heard in the mixed sounds thus produced. This is the so-called difference tone, C of the fifth octave having a number of vibrations equal to the difference between C and E of the seventh.

Dr. Blake, in pursuance of the same subject, exhibited a series of König's rods, and said that a difference existed in the rods, according as the steel was of a white or blue temper. This was a tempered scale, that of Dr. Bowditch was an untempered one. He spoke of the practical application of the rods in aural surgery, and reported a series of tests with regard to the hearing distance of these high tones in the normal ear and the highest limit of perception in cases of perforation of the membrana tympani. Dr. Blake's series of rods was a scale increasing by 5,000 vibrations in a second, and ranging from 35,000 to 75,000 of such vibrations. He is at present experimenting with rods of various metals and alloys.

Dr. Green spoke of the objections to experiments based upon distance; he thought variation in the surrounding sounds would make a difference at different times in the hearing power.

A Test for Color-blindness.—Dr. Jeffries spoke of and explained the usual methods of testing patients for corlor-blindness and interruptions of color perception in the visual field in disease. He also exhibited and explained an imitation of the instrument for testing color-blindness shown by Woinow at the last Heidelberg meeting of ophthalmologists. This consists of a rotating apparatus with a disk the centre of which is black and white, next outside a ring of red and green, next a ring of violet and red, and next, outside of all, a ring of violet and green. When rapidly rotated, the centre, of course, appears gray, that is of black and white mixed. The *outer* ring will also appear gray to the *red-blind* patient, as he can perceive gray from the two colors presented, violet and green. The *middle* ring will appear gray to the green-blind patient, since he can see gray by the mixture of violet and red. The *inner* ring will appear gray to the *violet-blind*, as red and green give him gray. Color-blindness is the loss of perception, in whole or part, of one or more of the three energies which we call red, green or violet; since the experiments of Maxwell, Helmholtz and other physiologists are agreed that these must be taken as the three base colors of light. Dr. Jeffries also spoke of some cases of microphthalmos where, although the globe was only minute and the place of the cornea a slightly bluer shade than the sclerotic, yet finest nuances of color could be detected, while vision as to shape and form was very defective.

RHODE ISLAND MEDICAL SOCIETY. ANNUAL MEETING.

The Rhode Island Medical Society held its sixty-first annual meeting in the rooms of the Franklin Society, at 10 o'clock, June 12th, when there was quite a full attendance of members, Dr. Geo. L. Collins, President, in the chair.

Dr. T. K. Newhall, Treasurer, presented his annual report, certified by the auditors, which was received and ordered on file.

Dr. E. T. Caswell, for Committee on Registration, presented the annual report of births, marriages and deaths, for 1870, in print, which was received and entered upon file. Births, 5,215; marriages, 2,362; divorces, 237; deaths, 3,238.

Dr. L. F. C. Garvin, for the Committee on Publication, presented the annual report, which was received and ordered on file.

The Society then proceeded to the annual election of officers for the ensuing year. Dr. Collins, President, and Dr. Gardner, Recording Secretary, declined a re-election.

President—Dr. Lloyd Morton, Pawtucket.

First Vice President—Dr. Fenner H. Peckham, Providence.

Second Vice President—Dr. George W. Jenckes, Woonsocket.

Recording Secretary—Dr. E. M. Harris, Providence.

Corresponding Secretary—Dr. C. W. Parsons, Providence.

Treasurer—Dr. T. K. Newhall, Providence.

Board of Censors—Drs. David King, Newport; Jas. H. Eldridge, East Greenwich; Ariel Ballou, Woonsocket; Otis Bullock, Warren; George D. Collins, Providence; James W. C. Ely, Providence.

Dr. S. Augustus Arnold presented the annual report of the Trustees of the Fiske Medical Prize Fund, which was received and ordered on file. The Trustees awarded no premiums on the subjects proposed by them for 1872. The Trustees propose the following subject for premiums for 1873:—

"Household Hygiene; practically considered with a view to rendering homes the most healthful possible."

For the best dissertation on this subject the Trustees will pay five hundred dollars. The Trustees contribute their fees to the printing fund.

Dr. Collins, the retiring President, retired from the chair with a few words of thanks for the kindness of members to him during his two years' incumbency, and invited Dr. Morton, the newly elected President, to assume the chair during the continuance of this meeting.

Dr. Morton, on assuming the chair, made a brief and appropriate speech, thanking the Society for the honor conferred on him.

Dr. Collins, on retiring, contributed $100 to the permanent printing fund of the Society, which example was immediately followed by Dr. Clapp, and on motion of Dr. Garvin the donations were received and the thanks of the Society voted to Drs. Collins and Clapp.

The following Standing Committees were elected:—

Committee on Registration—Drs. E. M. Snow, E. T. Caswell, Providence; S. Clapp, Pawtucket; J. H. Eldridge, East Greenwich.

Committee on Publication—Drs. H. G. Miller and C. T. Gardner, Providence.

Committee to Audit Accounts—Drs. C. W. Fabyan and E. T. Caswell, Providence.

Committee on Annual Dinner—Drs. T. K. Newhall and J. W. C. Ely, Providence. Dr. Ely subsequently declined, and Dr. F. H. Peckham, senior, was elected to fill the vacancy.

The Board of Censors appointed Drs. C. T. Gardner, of Providence, and D. M. Edwards, of Woonsocket, first and second Orators, and George A. Pierce, Anniversary Chairman, for the next annual meeting; and the report of the Board was received and the appointments adopted by the Society.

Dr. L. F. C. Garvin, of Lincoln, then read the annual address before the Society, upon the subject of "Modern Therapeutics as an Applied Science." It was an able essay on modern therapeutics, compared and contrasted with those of ancient times, and a comprehensive and exhaustive discussion of the subject.

The meeting then adjourned to 2 o'clock, P.M., to partake of the annual dinner at the Aldrich House.

The Annual Dinner.—The members of the Society, with delegates from other Societies, State and city officials, and other invited guests, met again at 2 o'clock at the Aldrich House, on Washington Street, to partake of the annual dinner provided by the Committee, Drs. Ely and Newhall. A large number of members of the Society were present, filling every seat at three long tables, extending the length of the dining hall, and presenting quite an imposing array of doctors of medicine, philosophy and laws.

Dr. E. T. Caswell, Anniversary Chairman, after the alimentary exercises and metaphorical removal of the cloth, officiated as toast master, and read several regular toasts, to which suitable and pointed responses were made, of which for want of room, we can give only the briefest synopsis. His Excellency Gov. Padelford responded for the State; His Honor Mayor Doyle, for the city; Dr. Morton, the newly elected President, for the Society; Dr. Collins, ex-President, for past officers; Rev. Mr. Twining, for the clergy; Dr. Parks, late Editor of the Boston Medical and Surgical Journal, for the Medical Press; Dr. J. B. Upham, of Boston, introduced as "the father of the Great Organ," responded quite happily to the sentiment of "Medicine and Music"; John F. Tobey, Esq., for the doctors of laws; Dr. T. H. Mackie, of New Bedford, for the delegates from other Societies, complimenting the Rhode Island Medical Society and physicians of the State; President Caswell made a very happy response for Brown University, as did Dr. C. W. Parsons for the Rhode Island Hospital; Dr. Geo. Capron spoke quite briefly in response for the medical profession, and the literary exercises closed with a brief, comprehensive and scholarly address by Dr. Geo. W. Carr, in response to the toast, "The Junior Members of the Profession," which was received with hearty applause and commendation.

Dr. Caswell then announced that the sixty-first annual meeting was adjourned, and the company retired from the tables and departed their various ways, with a general expression of the opinion that this had been one of the most successful, gratifying and encouraging annual meetings the Society had ever held.

Selected Papers.

STRANGULATED HERNIA.

By Sir James Paget, Bart., &c.

For a general rule, let me repeat, your first examination of a patient with a hernia supposed to be strangulated should not be with a design to reduce it at once, but rather with a design to make out what shall be done; what are the chances of reduction without operation; what helps shall be used to obtain it, if it be deemed desirable. Of course you may reduce the hernia, if reduction at once be easy; but do not go on trying if it be difficult. If the case be a bad one, you must first decide whether reduction without operation should be even attempted; and, if the attempt is to be made, what and how much it should be. For this decision, here are some general rules, which I find illustrated by my cases.

In very bad cases—as, for instance, when the patient vomits fæcal matter and has peritonitis, or is in collapse, with a small, rapid pulse, hiccough, or other such extreme signs—there should be no attempt at reduction without operation. The risk of the operation is trivial in comparison with that of returning sloughing or ulcerating intestine into the abdominal cavity.

When the coverings of the hernia are so inflamed as to make it probable that sloughing or suppuration has taken place beneath them, reduction should not be attempted without operation; and even when they are less inflamed, none but very brief and very gentle efforts should be made, for success is improbable, and failure may be mischievous.

The longer the signs of strangulation have existed, the shorter should be the efforts at reduction; and the more acute the signs are or have been, the more gentle should these efforts be. Only, here, do not reckon among the acute signs the intensity of pain in recent or greatly enlarged herniæ; for many of the most intensely painful herniæ are reducible with the help of chloroform, though they may need as much force as is in any case justifiable.

The longer and the more numerous and forcible the efforts at reduction made, in any case, before it comes under your care, the briefer and gentler should your own efforts be; if, indeed, you do not at once decide that enough has been done, and that there remains no fair chance of reduction without operation.

If you find that you have to do with a hernia which has been habitually irreducible, and in which you have reason to believe that, without any addition to them, the contents of the sac have become strangulated, you had better operate at once. You are not likely to reduce a protrusion which even before strangulation was irreducible.

Let me now suppose that, observing these rules, a first examination of a strangulated hernia leads to the decision that its reduction without operation is to be attempted: I cannot give a single rule of practice that shall always suffice for the next step after such a decision; but, speaking generally, and of a great majority of cases which come under treatment, it is a safe rule of practice that, after a very warm bath and a few hours' rest in bed—say from three to twelve hours, according to the case—a single attempt at reduction, of reasonable force and length, should be made; that, if this should fail, chloroform or ether should be given; and then, in some cases, but not in all, a second attempt should be made; and that, if this should fail, or if it should not be made, the operation should be performed while the patient is still insensible.

The hot bath should be used in all cases that are not very bad, unless in old and feeble persons, whom it might depress too much. Among these, its place may be supplied by very hot fomentations, or by warm poultices over the hernia and the parts near it; and these must be used as the next best things when a hot bath cannot be had. Helped by rest, all these things are certainly very useful, whether by relieving the tendency to irritable muscular action, or by relieving congestion, or by whatever other means. Especially you may see their utility in hospital patients, who are commonly brought in wretched, chilled and restless, with their herniæ tense and full and very painful, and their abdominal muscles starting into resistance at the least painful pressure. The heat of the bath, and bed, and recumbent rest, may remedy all this; and the hernia may become easily reducible, or may even reduce itself. It is commonly advised to have the bath so hot, and to keep the patient so long in it, that he may be very faint; and during this faintness to attempt the reduction while the patient is still in the bath. I more than doubt the prudence of this advice. It seems to me better to let the patient be simply soothed and relaxed in the bath, then to put him into bed wrapped in warm blankets, lying on his side, on his back with his knees drawn up, or with his pelvis a little raised, and then, after an hour or two of complete rest, to attempt the reduction. The advantage of this plan is shown in the many cases in which the surgeon gets the credit for reducing a hernia which the house-surgeon has failed to reduce. The house-surgeon tries in the bath, and fails; the surgeon, an hour or two later, succeeds, not, or at least not always, by greater skill, but by reason of the more favorable condition of the patient after a time of rest and warmth, and of his better position—lying flat, instead of half-sitting as in the bath. This employment of rest and the bath may be helped by opium whenever the hernia is very painful, and the patient too restless to have a chance of natural sleep. A grain of opium may procure the rest necessary for the quietude of the parts, but is less likely to be useful with femoral than with umbilical herniæ, and less likely with these than with inguinal.

In the old, and in others who may have had inactive bowels long before the strangulation, and in whom fæcal accumulations or abundant air may be in the large intestine, an enema even of a large quantity of liquid should be used; for the emptying of the large intestine may greatly facilitate the return of the hernia. Purgatives, I believe, had better not be thought of, if there be any marked signs of strangulation. There are no clear indications for determining the cases in which they might possibly be useful; and, if they do no good, they may do grievous harm. I do not doubt that some have gained advantage from purgatives; but in my notes and memory I rather find instances of mischief, and certainly no cases in which there seemed reason to think that the patients were the worse for not taking any sort of purgatives after evidence of strangulation.

After the warm bath and rest—and still speaking of only the majority of cases, for in some there is no time for these things—you may give chloroform or some other anæsthetic, and try to reduce the hernia. How you are to do this, I cannot tell you now; nor what time and force are reasonable to be used. You must imitate what you see done by men of repute, and use the best common sense you can. I can tell you some things that you must not do. You must not go to work as if you were resolved to reduce the hernia *per fas aut nefas*; you are not to spend an hour or even half an hour about it, or use all your force, or take off your coat and turn up your shirt-sleeves, or kneel on the bed, that you may press with the more weight; you are not to let half a dozen persons try their hands in turn. You are not to do these or the like things, all of which I have known as the sources of dire calamities. You are to be gentle and self-restraining, mindful of the delicacy of some of the structures you are handling, and that you may do them much more harm than would come of the operation which you are trying to avert. These cautions are the more necessary because, when the patient is under chloroform, you have nothing but your own sense and senses to tell you how far you may go without doing harm. The great value of chloroform and ether is that, by abolishing sensation, they put an end to the muscular resistance to reduction which, whether he will or no, the patient makes when hurt by the pressure of his hernia. Hence they are most useful in the herniæ of which the difficulty of reduction is chiefly due to muscular resistance; in the recent, or in the recently much enlarged; in the inguinal more than in the femoral, and in these more than in the umbilical; in the painful more than in the painless. Chloroform and ether are by so much the most potent helps to the reduction of herniæ, that it may seem as if it would be right to use one of them without waiting for the influence of a warm bath, or recumbency, or any similar means. Sometimes it is right thus to do, especially in herniæ that have only recently come down and are intensely painful. But more commonly, if there would be danger in waiting for three or four hours, it is because strangulation is so far advanced that the operation ought to be done at once, without any previous attempts at reduction. If there be no such extreme urgency for immediate reduction, there can be nothing but advantage in the use of the bath and the three or four hours' rest in bed; for they may make the hernia reducible, or, even if they fail of this, they may cause changes in it which are beneficial for both the performance of the operation and for the probabilities of recovery after it. * * * *

While you are waiting, you may use, in different cases, ice or warm dressings, enemata, aperients or opiates. I cannot tell you the indications for each of them. I am glad to have had no sufficient experience of waiting to have weighed the several values of these things; glad, because I have no doubt that, for every case in which an operation has been avoided by waiting, there have been two cases in which lives have been lost by waiting too long. But there are at least one or two conditions favorable for all cases in which you desire to wait; namely, rest in bed and very sparing food. Nothing should be allowed to disturb the patient's rest, and no handling of the hernia should be permitted. Part of the value of ice and poultices and other applications is this, that they keep all hands off.

Of other supposed helps I will not speak —of tobacco, and curious postures, and shakings with the legs up and the head down, and cupping-glasses, and other like and unlike things. They are ingenious wrong-doings, more dangerous than the operation which they are intended to avert.

In speaking of herniæ as being reducible, I have had in mind only such as can be completely and certainly reduced. But it is not uncommon to meet with cases of strangulated hernia, in which the reduction is doubtful or partial. As I looked through my cases, I found many of these recorded, in which there was delay in sending patients to the hospital, because surgeons believed that part of the hernia was put back, and hoped the rest would soon go; and some in which, even in the hospital, there was mischievous delay through the same fallacious hope. It is not easy to say what takes place in these partial or doubtful reductions. Some patients will tell you that the whole never did go back, and that what now seemed to be reduced might only be an additional protrusion. Sometimes, I think, air is pushed back from the intestine, or fluid from the sac; sometimes omentum is put back; sometimes, perhaps, part of the intestine; sometimes nothing—the whole notion of reduction being fallacious. The liability to deception is greater than you would imagine. You may feel a thrill of receding fluid, or a gurgling of air, which you may suppose to be what some describe as the characteristic gurgling (as if anything of the kind were infallibly characteristic), or something slipping back; but all may be fallacious. There is one practical rule for all these cases. If the symptoms of strangulation be not relieved by the supposed reduction; if the vomiting continue, or the pain, or the patient's sense of distress, or any other of the distinctive symptoms—then, without delay, you must operate. A partial reduction of a strangulated hernia, if it be not followed by a complete relief of symptoms, is in nothing better than no reduction.

I may add, that most doubtful reductions are not reductions; and of the partial reductions, none are safe except some of those in which intestine is put back and only omentum remains in the sac.

Be prepared also for cases in which reduction is, or seems, complete, and yet the signs of strangulation are not relieved. In these, a hernia may be returned *en masse*, or pushed into another sac, or between the peritoneum and fascia; or the case may be one of hernia complicated with an internal strangulation, or one of many other conditions so hard to discriminate and deal with, that I can give only one general rule for their management—viz., that if you can feel a lump at or near the hernial ring, as if there were something which may be a strangulated hernia, then you must operate.

To end what I should say respecting the propriety of operating, I ought perhaps to speak of the condition of the patient as affecting the risk of the operation by reason of age and general health and various complications. Among my cases, I find not only many of the fattest and feeblest, but examples of complication with phthisis, acute and chronic bronchitis, aortic constriction, phlebitis, gastric ulcer, diseased bladder, intestinal disorders of various kinds, and internal strangulation. Patients such as these were one would not wound for any trivial good; but, with a strangulated hernia, the peril of doing the operation can hardly ever be so great as the evil of leaving it undone. Old age and feebleness, fatness, intemperance, or unsoundness of whatever kind, may add to the risks of this, as of any other operation; but all these risks must be accepted. A patient must not be allowed to die with a strangulated hernia, if by any means whatever the strangulation can be relieved; and you must not be averted from the operation by any consideration of the number of deaths that follow it. The deaths after the operation may be 50 per cent.; but the deaths due to the operation are not more than 2 or 3 per cent., and even these would probably have been deaths from the hernia if the operation had not been performed. The great proportion of deaths is made up of those in whom the strangulation has done mischief which the operation cannot remedy. It is not unfair to maintan that, speaking generally, the deaths after operations for hernia are only to be counted as failures to save life, while the recoveries are to be counted as lives saved from certainly impending death.—*Brit. Med. Jour.*

Medical and Surgical Journal.

BOSTON: THURSDAY, JUNE 27, 1872.

THE TIME HAS COME.

UNDER this head, the Philadelphia *Medical Times*, of April last, utters some plain truths in a very frank manner on "the necessity of immediate reform, regardless of consequences, in our plan of medical education," and pays handsome and well-merited compliments to the Harvard Medical School. "Certain it is," it says, "that to-day the cream of medical students—those whom every institution is most anxious to have enrolled upon its list of matriculants—assemble in a medical school which only a few years ago was considered third-rate, but which has now suddenly leaped into the first position in the country, although located in a city which is signally deficient, as compared with New York and Philadelphia, in clinical and pathological material." * * * "Suppose the number of graduates annually be small; such a fact must add to, rather than detract from, the reputation of a first-class medical school, if the few who are graduated be thoroughly educated. And when, later, it shall be known that to be one of the annual few secures respect and insures success, there will be no uncertainty as to the future of the institution they fondly call Alma Mater."

This is very well for Philadelphia, though late. There has never been a want of advantages in Boston for the diligent student; always, in fact, more than could be thoroughly used in the short period of privilege. The country has known for a half century at least, and recognized it more decidedly in the late war, that the Harvard graduates were second to none, but in advance of those from most institutions. It is gratifying, nevertheless, to have it so candidly and frankly admitted that the Harvard Medical School now occupies "the first position in the country."

As in marked contrast with the cordial spirit of the expressions above quoted, which, with the allowances indicated, really represent, we believe, the feelings of all who have the best methods of medical education at heart, we call attention to the views of another of our contemporaries, as illustrated in the following passages. Evidently our friend of the *Nashville Journal of Medicine and Surgery* would confess himself in full sympathy with the ideas of the last President of the American Medical Association as presented in his address at Philadelphia; and would not hesitate to declare the dangerous effects of too much knowledge. Neither the President nor the Editor indicates just the line where a safe amount of knowledge ends and where knowledge that is dangerous begins; but we are to infer that medical students should drink very cautiously of the spring presided over by the muse of the medical sciences.

"Amid the clash and clatter, all over America, for the last quarter of a century, upon reform in medical teaching, our feeble voice has, all along the line, proclaimed, probably medical teaching in America is all wrong, but it has been developed by an

American necessity, and is eminently American, and therefore, beyond all doubt, the best for America, and the tendency is infinitely greater for it to become more so than less so. The sessions are too long, the number of teachers and number of lectures too great. We want more demonstration and less gas. The gas element in all of our colleges is six times as long as the demonstration element. The gas is a remnant of foreign barbarism, and is not at all American, and is bound yet to escape through an American pinhole.

"Harvard lost one hundred and five students last session, by what exchanges call 'the salutary reform'—that is, three sessions. Three sessions, and Greek and Latin, look well, but they are not American. Our exchanges think Harvard will continue this 'salutary reform,' though it reduces her classes to zero; but we know better—Harvard is not going to do any such thing, but Harvard will return to her old way. Do we not all know that the University of Pennsylvania got on stilts once, and lengthened her sessions to six months, her rival poling along her old American keel at four months. Never mind, said the friends of the former, looking upon her empty benches, she will hold out to the last. Not a bit of it, we suggested; she will do a more sensible thing—she will get off her stilts and forswear any such unnatural method of locomotion for life; and she did. * * *

"The great trouble of innovators is, that they will not comprehend that medical abilities are *never* developed by medical colleges. If a man becomes a great physician, he makes himself so after he quits college, and independently of anything he was taught there. A teacher, with his belly full of fire, and every nervous fibril in his organism astrut with electricity, with a memory faithful as a handmaid to his genius, and to the threshold of whose storehouse of learning the writers of all countries and all ages have lain down their contributions; such a man, in an active state of eruption, with lightnings flashing about his mouth, and lava, at a white heat, pouring over his beard, and scintillating among an audience, who, though spell-bound, have each a half-dozen able-bodied *Amens* struggling in his elongated throat, and, like a lighted shell, ready to explode; yes, such a man may inspire one to struggle on amid poverty, neglect and contumely, till the day-star of promise shall peep over his horizon, and beckon him to triumph and glory; but it is the one man, and not the college, to whom he will ascribe his regeneration."

After such scathing and volcanic rhetoric, we hardly have the heart to assure our contemporaries that those who are best informed concerning the present condition and the prospect of the Harvard School say nothing about "getting off her stilts," but they do say and mean that the change in the method of medical instruction shall be something more than an experiment, after which "Harvard will return to her old way." It would be ungracious to suggest that the standard of medical knowledge indicated by our contemporary would do for his latitude, for we hold that the sick man everywhere, in Tennessee as in Massachusetts, deserves the best medical care that the best medical man, educated at the best medical school and to the highest medical attainments possible, can give. The Harvard Faculty is not content to rest satisfied with a standard which for so long has been "eminently American."

How Smallpox is Spread.—A little while ago, somebody traced the propagation of smallpox to the paper-currency in general circulation. And now the *Lancet* has found another medium, equally probable and equally subtle, namely, library-books. The danger from this source is believed to be a real one. In Leicester, England, in consequence of the prevalence of variola, persons at whose dwellings it exists have been officially requested to refrain from borrowing books from the Free Library, and those who already have books are desired to return them to the disinfectant office instead of to the library. The *Lancet* suggests one farther step of precaution, and that a radical one, and would require, in times of epidemic smallpox, that persons borrowing books from libraries should bring a certificate that there is no infectious disease at home. Such a measure is very reasonable and proper in theory, but its practical execution would be something more odious and mythical than compulsory vaccination is found to be in some places.

A New Method of arresting Epistaxis.—Dr. F. Marin, of Geneva (*Journal de Méd. et de Chir. Prat.*, May, 1872), has discovered a new and simple method of arresting hæmorrhage from the nasal cavity. It consists in applying pressure to the facial artery at a point immediately beneath the ala of the nose, where the vessel can be pressed against the superior maxillary bone. In epistaxis the hæmorrhage is usually confined to the anterior third of one of the nasal fossæ, and as pressure upon the facial artery causes a diminution in the flow of blood to this cavity, the hæmorrhage is arrested almost immediately, and this proceeding is therefore recommended as preferable to that of plugging the posterior nares by the aid of Belloc's sound, in attempting which the surgeon is generally pretty thoroughly smeared with blood, and is not unfrequently bitten. Dr. Marin has had occasion to give numerous trials to this method suggested by him, and has generally found it effective. In two instances where it failed, plugging the posterior nares was attended with like result.

Poisoning by Vanilla-bean. *Messrs. Editors,*—In the Journal for May 30th there is an extract from the *Med. and Surg. Reporter* on poisoning by vanilla flavoring. It is there stated that Schroff believes that the poison is produced by the use of cashew-nut oil to besmear the vanilla-pods.

Having been poisoned myself a few years ago—together with eight or nine other persons in my family—by "the extract of vanilla," I was led to institute inquiries as to the cause, and arrived at a different conclusion from the above. The food which sickened those of my family who eat of it was custard flavored with the extract of vanilla. The bottle from which the extract was taken had been opened some months previously, and a part of it used at that time without producing any ill effects.

By inquiring among my friends, I learned that one of them, together with a large family of which she was a member, had been poisoned by food flavored with vanilla extract, which was stale and which had been exposed to the air for some time.

As the same manufacturer's extract of vanilla had been used in my family for years without bad effects, and a portion of the same bottle had been consumed some months before without producing any sickness, and as we have since used the same flavoring for ices and food, prepared by the same parties, taking care always to use it fresh, and only in the above instance having been made sick by it, I have come to the conclusion that a change takes place in the extract when exposed for a time to the air, and that this developes some poisonous properties. Hampshire.

Lists of Physicians in Boston Directory. *Messrs. Editors,*—In consequence of some oversight in printing the lately-issued number of the Boston Directory, certain errors have occurred in the lists of physicians in Boston, to which I ask permission to call the attention of the profession through your columns.

The following names of Fellows of the Massachusetts Medical Society are erroneously printed in the list of "Other Physicians," although most of them appear also in that of the Fellows of the Society: Geo. A. Bragdon, Geo. W. Copeland, Albert Day, E. A. Gilman, J. T. McSheehy, John B. Moran, Charles P. Putnam, James J. Putnam, N. P. Quint, F. W. Vogel.

The name of William P. Bolles, erroneously printed in the list of "Members of the Massachusetts Homœopathic Medical Society," should be included among the Fellows of the Massachusetts Medical Society. Your obt. servant,

Francis Minot,
Treasurer Mass. Med. Society.

Boston, June 17, 1872.

Pulvis Glycyrrhizæ Compositus.—The want of a mild but effective aperient, of convenient form and without any of the disagreeable concomitants, induces Dr. David Page to call attention in *The Practitioner* for May to the compound liquorice powder of the Prussian Pharmacopœia, first introduced into practice in Scotland by Dr. J. Warburton Begbie. It is composed of the following constituents, so prepared as to form when incorporated an almost impalpable powder: Senna-leaves, ʒvj.; liquorice-root, ʒvj.; fennel-seed, ʒiij.; sulphur, ʒiij.; refined sugar, ʒxviij. The usual dose is a small teaspoonful at bedtime in water, with which it is easily mixable, forming an agreeable draught. Children readily take it, with the belief that it is a sweetmeat. The motions produced by this powder are soft but well formed. It will be found especially useful in the treatment of constipation resulting from atony of the bowel.—*Medical Times.*

M. Barth, who, since Trousseau's death, has had a large share of the consulting practice of Paris, is President of the Academy of Medicine of Paris for 1872.

Medical Miscellany.

Good Fortune of the Massachusetts General Hospital.—A few days ago the Treasurer of the Massachusetts General Hospital receipted for the large sum of $446,000, which was paid to him as the result of a provision of the will of the late John Redman. Mr. Redman died some twenty years since, leaving a will by which the hospital was made the residuary legatee of his estate upon the death of a son who had a life interest in it. The advance in both real and personal estate since that time has increased the value of the legacy from the $50,000, which the trustees of the institution once expected to receive, to nearly half a million.

The Criminal Code admits a new form of indictment in these latter days:—Assault with intent to become insane.

The West Virginia State Medical Society held its annual session at Wheeling, beginning June 7th, and continuing three days. Various scientific papers of value were read and discussion upon medical subjects was indulged in. Dr. R. H. Cummins, of Wheeling, was elected President of the Society for the ensuing year. The next meeting will be held at Parkersburg Wells.

Virginia State Board of Health.—The newly established State Board of Health of Virginia was organized at Richmond, May 18th, by the choice of Prof. S. L. Cabell, of the University of Virginia, as President, and of Dr. L. S. Joynes as Permanent Secretary. The Board consists of seven members, all physicians. Among the matters brought before the meeting for immediate action was the subject of vaccination and re-vaccination, with special reference to compulsory legislation.

Virginia is the second State to follow the example of Massachusetts in the institution of a Board of Health.

Cold Alcoholic Test for Albumen.—Dr. C. R. Drysdale reports from the Metropolitan Free Hospital, that he has tried the cold alcohol test for albumen, recommended by Dr. Betz (*Memorabilien*, 1872), and that it has proved trustworthy in the cases tried by him. Dr. Betz remarks that boiling the urine is not always a sufficient plan when examinations are made in private practice, because albumen is not always thrown down by boiling. Also nitric acid is not certain in all cases. He mentions that a trustworthy and very easily obtained reagent, is ordinary spirit as bought in shops. A portion of the urine is poured into a glass, and over it about an equal quantity of spirit, without allowing the two liquids to mingle. When albumen is present, the alcohol has a milky haze at the junction, and occasionally there are small nipples of albumen seen in the alcohol when the urine is very full of it. This process is so simple that it can always be made use of. According to Dr. Betz, this test will frequently show albumen when we are not inclined to think it exists on account of the absence of œdema, heaviness of the body (which is seen in children), foaming of the urine on micturition, scarlatina or pneumonia. Dr. Drysdale has found the reaction in four cases of chronic albuminuria now under his care at the hospital.—*Med. Press and Circular.*

The Hôtel Dieu, Paris.—The buildings of the new Hôtel Dieu, the construction and plan of which have been so much condemned, are still to be used for the purposes of a hospital, and they will not be converted into barracks, as was at one time contemplated, we believe, by the Imperial Government. The completion of the buildings is at hand, and it is expected that the new hospital will be ready for the reception of patients before June of next year. The wards are lofty, and ample cubic space will be allowed. Wards of about one hundred and fifteen feet long and twenty feet broad are to contain sixteen beds, eight on each side.—*Brit. Med. Jour.*

Books Received.—Lectures on the Principles and Practice of Physic. By Sir Thomas Watson, Bart., M.D., &c. Two volumes. Philadelphia: H. C. Lea. (From the Publishers.)—The Chronic Diseases of Women, with special regard to their Treatment at Creuznach. By Louis Nichels, M.D. Berlin: Mitscher & Röstell. (From Trübner & Co., London.)—Autumnal Catarrh. By Morrill Wyman, M.D., &c. New York: Hurd & Houghton. (From the Publishers.)

Pamphlets Received.—Minutes of the Twenty-third Annual Meeting of the American Medical Association, held in Philadelphia May 7th, 8th, 9th and 10th, 1872. Pp. 73. William B. Atkinson, M.D., Philadelphia. Price 50 cents.—Annual Report of the City Registrar of the Births, Marriages and Deaths, of the City of Boston, for the year 1871. Pp. 38.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending June 22, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	113
Charlestown	4
Worcester	24
Lowell	21
Milford	6
Chelsea	6
Cambridge	16
Salem	6
Lawrence	8
Springfield	3
Lynn	12
Fitchburg	6
Newburyport	5
Somerville	5
Haverhill	6
Holyoke	9
	250

Prevalent Diseases.

Consumption	46
Pneumonia	16
Scarlet fever	13
Measles	13
Typhoid Fever	9
Cholera Infantum	9

There were ten deaths from smallpox; nine in Boston and one in Holyoke.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, June 22d, 113. Males, 59; females, 54. Accident, 3—apoplexy, 4—anæmia, 1—inflammation of the bowels, 2—bronchitis, 4—inflammation of the brain, 2—disease of the brain, 5—cerebro-spinal meningitis, 1—cholera infantum, 3—cyanosis, 1—consumption, 13—convulsions, 3—debility, 1—diabetes, 1—dropsy of brain, 2—drowned, 3—dysentery, 2—scarlet fever, 7—typhoid fever, 5—disease of the heart, 3—homicide, 2—intemperance, 1—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 7—marasmus, 3—old age, 3—paralysis, 1—premature birth, 3—puerperal disease, 3—stomatis, 1—scrofula, 1—smallpox, 9—sunstroke, 1—thrush, 1—whooping cough, 1—unknown, 6.

Under 5 years of age, 48—between 5 and 20 years, 13—between 20 and 40 years, 25—between 40 and 60 years, 17—above 60 years, 10. Born in the United States, 82—Ireland, 20—other places, 11.